

1. A microwave powered lamp assembly comprising:
a housing structure;
a magnetron mounted in said housing structure;
an optical cavity in said housing structure;
5 a plasma-filled lamp bulb mounted in said optical cavity and capable of
being activated by said magnetron; and
a shutter mounted for movement relative to said optical cavity between at
least two positions to selectively allow transmission of light from said lamp bulb
out of said optical cavity or prevent transmission of light from said lamp bulb out
10 of said optical cavity.
2. The lamp assembly of claim 1, further comprising an actuator coupled to
said shutter for moving said shutter between said two positions.
3. The lamp assembly of claim 2, wherein said actuator is a pneumatic
actuator.
4. The lamp assembly of claim 1, wherein said shutter is comprised of a
material which allows unrestricted airflow therethrough but prevents any
significant UV radiation transmission therethrough.

5. The lamp assembly of claim 1, wherein said shutter is positioned with a light sealing relationship relative to said optical cavity in the closed position to prevent any significant UV radiation transmission from said optical cavity.

6. A method of operating a microwave powered lamp assembly, comprising:
- activating a magnetron of the microwave powered lamp assembly;
 - exciting plasma in a plasma filled bulb mounted in an optical cavity of the
- 5 microwave powered lamp assembly such that UV radiation is emitted from the plasma filled bulb; and
- selectively opening and closing the optical cavity to allow and prevent transmission of the UV radiation from the optical cavity.
7. The method of claim 6, wherein selectively opening and closing the optical cavity further comprises:
- moving a shutter back and forth across the optical cavity.
8. The method of claim 7, further comprising:
- forcing cooling air through the optical cavity and the shutter to cool the plasma filled bulb.
9. The method of claim 6, wherein closing the optical cavity further comprises:
- sealing the optical cavity from any significant transmission of UV radiation therefrom.